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PARENTAL VIEWS ON THE MANAGEMENT OF YOUNG CHILDREN WITH RESPIRATORY TRACT INFECTIONS IN PRIMARY CARE – A PILOT STUDY

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ABSTRACT

BACKGROUND: Local primary care data shows a 24% increase in the rate of acute presentations with common self-limiting infections for children aged 0-4 years between 2015/16 - 2016/17. As rates of serious illness have decreased, this means increasing numbers of presentations could be managed elsewhere. Although parents rarely expect antibiotics, they are often perceived to want them by clinicians; potentially resulting in more antibiotic prescriptions and driving future health-seeking behaviour.

AIMS: To explore parent expectations, concerns and opinions about the primary care management of children presenting with respiratory tract infections (RTIs).

METHODS: Semi-structured interviews with parents of children aged 0-4 years presenting to primary care clinicians with symptoms of a respiratory tract infection. Analysis involved thematic review.

RESULTS: Parents used experience or 'parental instinct' when deciding to consult; this was due to seeing a similar illness before and receiving treatment, or alternatively having never seen this illness and being unsure of what to do. Parents saw the usefulness of written information describing actions to take and when to consult when their child was unwell. There was an about even split between those preferring paper and those preferring web-based resources. All parents sought input from a clinician for reassurance.

CONCLUSION: Better understanding of parent expectations when consulting clinicians with unwell children could facilitate a more effective consultation. Parents expect reassurance about their child's illness, but inconsistent advice and management from healthcare professionals, such as prescribing antibiotics, act to increase parental anxiety and potentially drives future health-seeking behaviour. Changing the way clinicians communicate, including the use of consistent messages, may have a positive impact during current and future acute illnesses.

INTRODUCTION

In 2014 15% of A&E attendances were for primary care presentations, with the largest subgroup being young children presenting with minor illnesses[1].

An increase of 24.1% in the rate of acute primary care consultations with common self-limiting infections has been noted in the 0-4 year age range (2015/16 compared to 2016/17) in Southampton (data provided by Southampton City CCG). Respiratory tract infections are the commonest reason for consultation. Reduced tolerance for uncertainty and the need for reassurance may explain this rise[2,3].

Research suggests that one of the main reasons that parents seek a medical review during an acute illness is to remove what they perceive to be a health-threat[3,4], as parents worry about failing to recognise severe illness[3,5,6]. Those who felt their child was fully evaluated were less likely to re-consult during the same illness episode[7,8]. Some parents were found to desire treatment to alleviate symptoms and expedite recovery[5]. However, parent satisfaction remains high regardless of the treatment decision, as long as parental concerns are addressed during the consultation[3,5]. This holds true even when antibiotics were expected but not prescribed[9]. Parental dissatisfaction normally results from a mismatch between parent expectation and the treatment, explanation and diagnosis provided by clinicians[7].

This mismatch between healthcare professionals' and parents' views may explain why rates of antibiotic prescribing in children remains disproportionately high. Perceived parental expectation for antibiotics[9,10] is an independent predictor of antibiotic prescribing[11,12], yet parents rarely expect antibiotics when they seek a consultation[9,10].

There have been mixed reports about safety-netting provision during consultations. In one study assessing parent views of consultations, doctors were found to infrequently offer useful safety-netting advice, leaving parents unsure as to what to be worried about and when they should re-consult[7]. However, another study exploring health-seeking behaviour of parents with febrile children, found that 81% of parents interviewed recalled being given safety-netting information[13]. However, parents unanimously found safety-netting information to be vague or unhelpful[7,13]. This lack of suitable information is concerning, as many parents lack confidence in evaluating the severity of their child's illness[7]. Parents wanted clear, concise, and symptom based, written information with details on what to look for. All clinicians in our pilot had access to locally developed safety netting sheets (https://www.what0-18.nhs.uk/professionals/gp-primary-care-staff/safety-netting-documents-parents); although it was left to the discretion of the treating clinician as to whether they used these resources or not.

METHODS

Short research interviews were conducted in a semi-structured style with a series of open ended questions and were facilitated by the use of a topic guide. Participants were encouraged to expand

on their answers and give their opinions, views and explain their experiences related to the topic. Eligible parents were asked if they wished to participate in a phone or face-to-face interview. Interviews were recorded on an audio recording device.

SAMPLE AND RECRUITMENT

The inclusion criteria were:

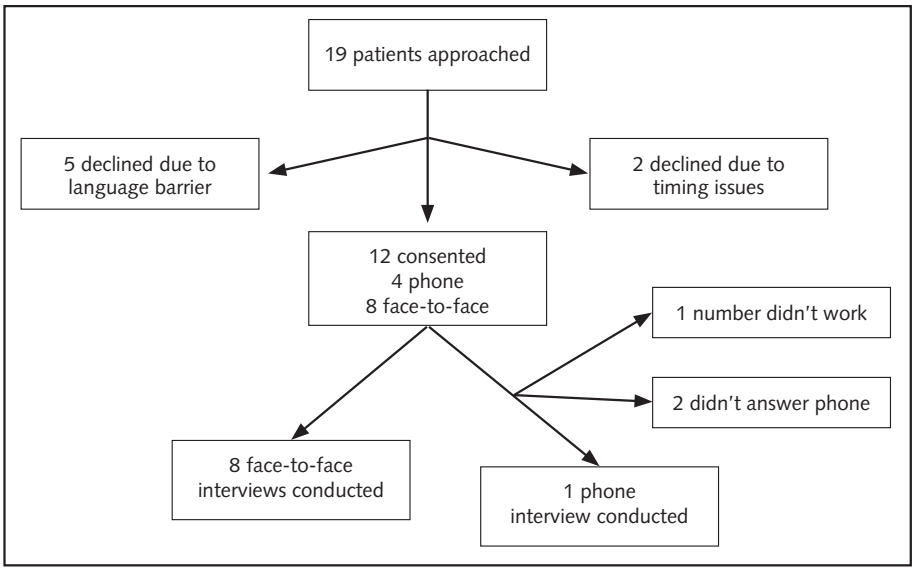
1. Parents of children 4 years old or younger
2. Parents who had consulted either a general practitioner (GP) or a practice nurse for RTI in their child.

Eligibility did not depend on whether antibiotics had been prescribed, if safety-netting information had been given or if they had booked on the day or been offered a routine appointment.

Parents who met the inclusion criteria were asked by the clinician or member of the study team to participate and were given a brief, initial explanation of what participating would involve. Purposive sampling was used to focus in on the specific illnesses (RTI) and age group (4 years of age or younger) to gain a depth of understanding about parent expectations, concerns and why they came to consult.

Interview recruitment took place from the 18/09/2017 to 9/11/2017 and involved the researcher (EF) spending days in the GP practices to do face-to-face interviews and recruit participants. Three days were spent in GP practice 1 (GP1), and seven days in GP practice 2 (GP2) (on two of these days no-one was recruited). Three participants were recruited from GP practice 1 and six from GP practice 2. Both practices provided healthcare services to people from a range of socio-economic backgrounds. The flow of participants is shown in Figure 1.

Figure 1: diagram showing flow of participants



GP1 was a smaller, more rural practice. From this practice three face to face interviews were conducted and no phone interviews were recruited, all of these participants consulted a GP.

GP2 was a much larger inner-city practice which provided healthcare to a larger area. Five face-to-face interviews were conducted here, and one phone interview was recruited and carried out whilst at the surgery. One of these patients saw a practice nurse and five (including one phone interview) saw a GP.

Two parents consented for phone interviews but were lost to follow up as they did not answer the phone when the member of the study team called, another parent consented but the number given did not work when tried.

DATA ANALYSIS

Audio recordings of interviews were transcribed using a transcription service and analysed using thematic analysis to identify codes and organise them into themes as described in Braun and Clarke (2006)(14). This was done using NVivo10. The codes were organised into themes and provided the results about what parents wanted and expected from consultations and information, as well as feelings, concerns and satisfaction levels.

ETHICS

This was classified as a service evaluation in conjunction with a larger service evaluation into the Healthier Together initiative. It was approved by University of Southampton Faculty of Medicine ERGO, and the larger service evaluation was approved by the Southampton University Hospital Trust Research and Governance department. Informed written consent was obtained from the participants after reading the information sheet and being given an opportunity to ask questions. Participants were asked to read, initial and sign a consent form before the interview took place. Transcripts were anonymised so participants were not identifiable from the data.

FINDINGS

Three main themes were found with nine subthemes, summarised in Figure 2.

Figure 2: themes and subthemes found from thematic analysis

Themes	Consultation	What parents want	Outcome
subthemes	Parents used their experience as a significant decider on when to consult	Parents expected reassurance	Parent opinion was split regarding re-consulting for the same illness next time
	Parents' concerns revolve around length and severity of illness.	Parents expected prescription or treatment	Most parents were satisfied with the outcome of the consultation
	Communication of the clinician within the consultation had an effect on parents	Parents want clear safety-netting information	

1. Consultation

1.1 Parents used experience as a significant decider on when to consult:

Parents discussed using experience as a decider on when to consult, including when they had no experience of these signs before, this was mentioned in six of the interviews.

I: *Did you have anything that you were particularly concerned about?*

GP1P1: *Mainly the cough.*

I: *What made it different from stuff you know before do you think?*

GP1P1: *Because he's never had a cough like it… I've got four kids all together and not one of them has had a cough like this*

Three parents cited their experiences with other children:

GP2P1: *Just from past experience; she's my fourth so I just thought well, I'm sure it's tonsillitis, we'd better check whether she needs any help.*

With four parents giving the opinion that they, as parents, know their child best and know when something is wrong, so used this most to decide when to come in, this is a sort of 'parental instinct':

GP1P3: *'I think as you go on you kind of just get the mummy instinct and you kind of know how to deal with these things. I think mummy knows best as well, like you know when your child's poorly.'*

One drew on her experience related to other aspects of her life (in this instance her being a healthcare professional):

GP2P5: *But I sort of mulled it over with my experience, thinking, oh, it's a rash, so what are the differentials [laughs], you know? I'm thinking, okay, let's just think ahead. But I don't think most people do that if they aren't medical.*

Two parents talked about other times they had consulted for illnesses and expressed concern that it might progress to a more severe condition as it had previously:

GP2P3: *I thought maybe she's got chest infection because she had chest infection… So that was my main concern.*

Experience was the main factor discussed in relation to deciding when to consult, however, seven of the parents also talked about other information sources they have used when deciding to consult.

Two parents mentioned asking friends or family for advice based on their experience:

GP1P3: *I sent a picture. My friend's daughter has recently had her tonsils out because she was forever getting tonsillitis and she said, 'I think it's best you go and get him checked just to be safe'.*

GP2P5: *my mum's going, 'She is better', and I'm like, 'No, she's not'. My mum's trying to reassure me and saying, 'She is brighter… she does seem a bit brighter',*

Three parents mentioned using other sources in this instance, NHS website and google. These

mainly highlighted that it would be quick and easy, and used to supplement their own knowledge and experience:

GP2P6: *You know, sometimes, under a lot of stress you panic, and you can just quickly google or something...*

1.2 Parent concerns revolved around length of illness and the perceived severity of it:

Parents were very concerned about the worst possible outcome.

GP2P5: *When it's your child and it's all on you and you're at home, you just feel so stranded. Every call you make, it's like is this the right thing. You know, that rash, what if it is something awful, you know? You think I'm pretty sure it's not, but what if it is, you know?*

Parents were also concerned when the treatments they were using were not making their chid better:

GP2P3: *I was using at home what I could use like Calpol and paracetamol and all this stuff and it wasn't helping her so that's why, I thought, no, I have to see GP now because things are getting worse now.*

Children not being themselves was another concern that was touched upon:

I: *Is there anything in particular that really concerned you or made it different?*

GP1P3: *Just that he wasn't really eating very much and he wasn't himself. Calpol perked him up but as soon as the Calpol was wearing off he'd sort of flake like this!*

1.3 Clinician communication during the consultation had an effect on parental confidence

Six parents talked about clinician communication during their interviews.

A few parents touched on the impact of the clinician's communication style:

GP1P1: *normally it's either no, there's nothing wrong with him, go away and come back in a week's time if it's still the same or it's something severe but it's nice that she told me exactly what she was looking for.*

One parent talked specifically about her doctor, assuming that she would get good advice because she believes that they are a good doctor:

GP2P5: *When it was Doctor F* that rang me back I was pleased, because he's a really sensible, level-headed, competent chap, and I felt quite happy … that I would get reassurance that it was, yes, either an allergic reaction or not an allergic reaction, you know? I knew that I would - I was confident I'd be reassured, or have my mind put at rest.*

One parent mentioned conflicting advice that they had been given previously and the anxiety this had generated during this illness:

GP2P5: *when I was at the hospital… with her when she was really, really small …and I was really*

worried about her, and then it was just viral, and they were like, 'Oh, it's okay', and I just had to make sure she didn't have sepsis. They said, 'The thing is with a temperature, it's your body's way of fighting it, so only give her the paracetamol if she's bothered by the temperature; don't worry. And you won't stop her having febrile convulsions'. So ever since that I was like, okay, I sort of only gave her a Calpol if she was bothered. But this time they said, 'Oh, no, you should give...' I was like, 'Well, she doesn't want to be fussed with, so I haven't forced it down her'

Another parent expressed concerns about the impact of inconsistent management approaches in primary care and secondary care:

GP2P3: *but when I come to doctor they say her chest is all clear... I thought maybe she's got chest infection because she had chest infection and I was coming to doctors for - a couple of times I came to doctor they said no, then they sent me to hospital and then hospital even said that she hasn't got chest infection until they do the X-ray and then they saw that there was actually chest infection.*

2 What parents want:

2.1 Parents expected reassurance

Seven of the parents talked about wanting reassurance from the consultation:

GP1P2: *I just thought I'd come back to double-check that everything was okay.*

GP2P5: *I know the GP's not going to send me home unless they're happy.*

2.2 Parents didn't expect a prescription or treatment

Few parents talked about wanting antibiotics, in-fact when most parents talked about antibiotics they mentioned they were just checking if their child needed them:

GP1P3: *Yes, just to see if he needed any antibiotics really because I'm giving him Calpol and Nurofen at home but I wasn't sure if he needed any antibiotics.*

Only one parent expressed that they had wanted a prescription:

I: *Was it any different to how you expected it would go or…?*

GP1P2: *I thought they would have given me probably like a prescription or anything like that but obviously it's not needed so…*

Two parents whose children was prescribed antibiotics would have preferred them not to have been prescribed:

GP2P1: *Yes, no it's fine. Also I will try and not use them (antibiotics) because she would prefer not to so it was good to hear that they say that it's only about a day's difference on recovery.*

Parents wanted to know if there was anything else that they could do or that could be done to help their child.

GP2P2: *I just concerned about does he need any medication or not.*

Parents did not usually express a desire for a particular treatment or prescription but instead referred to coming for reassurance or 'just to check'.

2.3 What parents wanted from safety-netting

Seven of the nine parents interviewed agreed they would have liked to be provided with clear information about signs and symptoms to look out for at home.

Three parents felt that such information was useful for first-time or worried parents, but less relevant for them:

> I: *Do you think you would have liked maybe some written information to tell you what to do or when to come back?*
>
> GP1P3: *No, as I say, I'm quite used to it now with some of the others as well, going through it all but we'll be fine, won't we? I understand that some first-time parents would probably want some information and maybe ones that - yes, first-time parents.*
>
> I: *do you think … other people would appreciate it more, or?*
>
> GP2P5: *Yes, probably. Yes, probably other people more, yes, because I bet there are people with a really low tolerance that would have gone to A&E a lot sooner, or maybe even gone to A&E today before coming here, you know, that would have been really panicking.*

As for the format in which the information should be provided, three of five parents preferred paper whilst two of five preferred on-line resources:

> GP2P1: *The printouts are handy because then you can look at it there and then. Yes, so, which they tend to do here. If they say oh, it's this and this and that they tend to give you a printout, so it's quite useful.*
>
> GP2P6: *seeing it on a website that's there to guide you what to look out for, to guide you and, basically, avoid panicking.*
>
> GP2P5: *I don't know that leaflets are all that, because then you lose them, don't you, and then you have to see someone to be given them, and you don't really take it in. But I don't know, if you're sat at home trying to problem-solve what to do with your child, I think websites and stuff are good.*

One parent talked about access to useful information potentially avoiding future re-consultations:

> GP2P3: *If I get information before I bring my child here there might be some certain things I can do at home so and then I see my child's condition, what it's like, according to information, then I would bring into doctors rather than just ringing and coming in, getting an urgent appointment, maybe someone else need it more than me.*

3 Outcome:

3.1 Parent opinion was split regarding re-consulting for the same illness next time

Five parents mentioned they would do the same thing next time:

GP2P5: *I would do the same thing. I would go and see the doctor, and then get my son the prescription for the antibiotics.*

Three parents stated they would maybe change their consulting behaviour:

GP1P1: *Not necessarily, no. The only time that I'd come back is if the cough was worse or even if the nights were as bad as they have been for him because she's given him something for the night-time.*

GP2P1: *Oh, well if it was the same one again, no, if I know we can combat it ourselves but if she wasn't picking up within three or four days then I would pick up the phone and get her checked.*

3.2 Most parents were satisfied with the outcome of the consultation

Seven parents indicated they were satisfied with the outcome of the consultation.

Two parents mentioned how the consultation reduced their anxiety levels:

I: *How did you come out of the consultation feeling?*

GP2P5: *Oh, relieved. Yes, really relieved, and empowered, and like happy to manage it at home.*

Two parents mentioned they weren't completely happy with the outcome, one was still concerned due to a previous negative experience, and one was unhappy about the antibiotic prescription:

GP2P6: *I suppose there was no other way of - there wasn't any other way of outcome, was it? It could be only this. They can't heal with their hands; they have to prescribe something.*

LIMITATIONS

A main difficulty observed during this evaluation was the small sample size. This was due to fewer RTI's presenting during the study period than predicted. Although consistent themes emerged throughout the interviews, these would need to be confirmed in a larger study.

Five parents declined to participate because they did not feel confident enough in their spoken English to be able to interpret questions and give answers; such an observation has been made in previous studies[15]. This group may have a different cultural approach to illness and further research focusing on this group is required.

Two parents declined to participate due to timing issues, for example they had other commitments or had been waiting a long time. However most eligible parents approached by the researcher or clinician they were consulting were happy to participate.

These factors meant parents who took part were broadly English-speaking parents. This may have resulted in the findings from our study not being generalisable to the non-English speaking population.

There is a small possibility that clinicians changed their consulting behaviours as they knew recruitment for this evaluation was taking place.

DISCUSSION

The most consistent theme that emerged from this pilot is that parents seek a consultation for reassurance. This theme has been described in previous studies[3,7,16], suggesting that adopting a shared decision-making approach, in which the clinician addresses the parent's concerns, has the potential to reduce re-consultation rates[17].

This evaluation also suggests parents base their decision on whether to consult on previous experiences. It was found that 67% of parents whose child was prescribed antibiotics would consult for a similar illness in the future. Of those in whom investigations were performed or treatment administered, 83% would return for a similar illness in the future. This is concerning as most of these conditions were self-limiting minor childhood illnesses and most parents consulted for reassurance. Treatments or investigations appear to be driving parents to consult or re-consult, and when combined with the increasing risk adverse behaviour of healthcare professionals[2] this suggests increasing investigations and treatments are linked with increasing unplanned consultation rates.

The theme of seeking a healthcare consultation 'just in case' or to 'check if they need any other help' was also frequently mentioned. This highlights the impact of parental anxiety on health seeking behaviour. This theme links to previous studies which have suggested that parents often attend for a health check[3,4]. In addition, the impact of inconsistent information resulting in increased parental anxiety was mentioned.

These findings support the potential impact of relevant and consistent safety-netting information and resources for common illnesses. In addition, ensuring that parents receive consistent advice from healthcare professionals across the urgent care pathway is likely to reduce parental anxiety and may also decrease their desire for consultation[17,18]. The parents interviewed in our study unanimously agreed they wanted consistent safety-netting material about what to look out for and when to seek help. Their use by healthcare professionals from across the urgent care pathway (including health visitors and pharmacists), as well as by parents when deciding whether a consultation is required, could have a significant impact on health seeking behaviour and could take significant pressure off primary care and front-line hospital services.

The quality of the resources being provided to parents is paramount. Studies have found that unclear advice may drive increased re-consultations or A&E attendances[18]. An important recommendation from a Department of Health report is to remove 'if you are worried' and replace it with more specific illness and symptom advice to help prevent these unnecessary consultations[18].

The most appropriate format for delivering such information is not entirely clear. In our study, there was approximately an even split between parents who wanted paper resources and parents who preferred web-based resources. This was similar to the findings in another study undertaken by our team[15]. Those preferring web-based resources mainly mentioned their role in helping decide whether consultation was required, whilst those preferring paper copies mentioned their role in aiding future decisions.

It is concerning that a significant proportion of the parents approached during our study declined to participate due to concerns about their spoken English. Similar observations have been made in another study investigating parental views about healthcare[15]. It is possible that these parents also experience difficulties when communicating with clinicians, potentially resulting in misunderstandings[8] and confusion over their child's care. This language barrier would also make it difficult for these parents to understand written or spoken safety-netting information, possibly leading to increased consultation rates as they are unsure of when to worry and what action they should take when their child is unwell; videos, diagrams or translations may be more useful in communicating information to this group of parents. For this and other reasons, a further study would be very useful.

CONCLUSION

The main reason that parents seek a consultation with a healthcare professional is for reassurance. They recognise that they often present 'just in case', due to anxiety surrounding the severity of their child's illness. Clinicians needs to be aware of the impact of inconsistent advice, unnecessary investigations and the administration of antibiotic on future health seeking behaviour. Our study also supports the potential benefits of providing parents with high-quality safety-netting resources. Due to the diversity and range in literacy levels across the UK, this evaluation has limited relevance to certain populations. A significant proportion of parents approached during our study didn't perceive themselves to possess adequate levels of English reading and/or speaking in order to participate. This suggests that further work is required to better understand the opinions and expectations of this group of vulnerable parents, in order to deliver high quality healthcare to their children.

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